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10/500,578

07/01/2004

Thierry Marin-Martinod

0512-1217

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08/22/2006

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EXAMINER

BELLINGER, JASON R

ART UNIT

PAPER NUMBER

3617

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------------|--|--|
| Office Action Summary | Application No. 10/500,578 | Applicant(s) MARIN-MARTINOD, THIERRY | |
| | Examiner Jason R. Bellinger | Art Unit 3617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-18, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Applicant's election without traverse of species I, drawn to Figure 1 and claims 17-18 and 20, in the reply filed on 9 June 2006 is acknowledged.

2. Claims 19 and 22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9 June 2006.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 18B. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 14-16, 18, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 14 and 21 are indefinite due to the fact that it is unclear what element or elements is/are being referred to by the term "them" in lines 4 and 3, respectively.

Claim 18 is indefinite due to the fact that it is unclear what is actually being claimed by the phrase "the or each sensor" in lines 4 and 6. It is unclear whether one or more sensors are being referred to by the aforementioned phrase.

6. Claims 15-16 recite the limitation "said connection means" in lines 4 and 3, respectively. There is insufficient antecedent basis for this limitation in the claim. This limitation has not been previously set forth in the claims. Furthermore, it is unclear whether or not the "connection means" is the same element as the "means for selectively connecting" or an additional element of the invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 12, 14-15, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Barabino. In Figures 3-5, Barabino shows a wheel assembly 150 including a rim 152 and a tire 154, which define a closed space therebetween. The closed space includes pressurized gas (namely pressurized air). A reservoir 156 containing a pressurized gas is disposed in the annular space defined between the tire 154 and the rim 152. The reservoir 156 rotates with the rim 152. A means 164 for selectively connecting the reservoir 156 to the closed space is mounted to the rim 152.

As best understood, a control unit 166 is connected to the selective connecting means 164, capable of switching the means 164 between an open and closed state. The control unit 166 is a pressure sensor that switches the connecting means 164 between open and closed states dependent upon the pressure within the closed space. The wheel 150 further includes means 178 for selectively venting the closed space that is connected to the control unit 166.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barabino in view of Gonzaga. Barabino does not specify that the reservoir is filled with nitrogen. Gonzaga teaches that a tire may be filled with nitrogen (see paragraph [0004]). Therefore from this teaching, it would have been obvious at the time of the invention to fill the reservoir of Barabino with nitrogen, as a substitute equivalent tire-filling gas, dependent upon availability, cost, and the type of application in which the tires would be used.

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barabino in view of Alonso et al. Barabino does not show a wheel assembly including a temperature sensor. Alonso et al teaches the use of a wheel assembly including an air regulation system controlled by a temperature sensor 70. Therefore from this teaching, it would have been obvious at the time of the invention to provide the control unit of Barabino with a temperature sensor, in order to allow the control means to activate the connecting means in response to either a pressure drop or temperature change in the tire, thus providing a system that responds to more than one variable.

12. Claims 17-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barabino in view of Hamilton et al. In Figure 2, Barabino shows a remote data processor unit 140 that does not rotate with the wheel 150. A complementary wireless communications means connects the control unit 166 to the data processor unit 140

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allowing transmission of measured value data therebetween (see column 5, lines 40-45).

Barabino however does not disclose the data processor unit transmitting commands to the controller, nor the presence of antennas. Hamilton et al teaches the use of a tire pressure management system that includes a data processing unit 150 that may transmit commands to a control unit 158 to allow insertion of air into a closed space formed between a tire and wheel rim. Transceivers 164 and 166 include antennas, one of which (164) rotates with the wheel, while the other (166) is remotely situated from the wheel and connected to the data processing unit. Therefore from this teaching, it would have been obvious at the time of the invention to provide the system of Barabino with a data processor capable of commanding the control unit using signals transmitted by antenna, in order to allow precise control of the amount of gas inserted into the tire during operation, as a substitute equivalent controlling means, dependent upon availability and cost.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are considered to show tire pressure management systems. For example, McGhee shows a tire pressure management system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Bellinger whose telephone number is 571-272-6680. The examiner can normally be reached on Mon - Thurs (9:00-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason R Bellinger
Primary Examiner
Art Unit 3617

